DEPARTMENT OF INFORMATION TECHNOLOGY

NUTAN MAHARASHTRA INSTITUTE OF ENGINEERING AND

TECHNOLOGY TALEGAON DABHADE, PUNE

SYNOPSIS

This is to certify that the seminar synopsis entitled

" EMA (Emotional and Mental Analyst)"

Submitted by

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Is a bonafide work carried out by her under the supervision of **Prof. Nitin Dhawas** and it is submitted towards the fulfillment of the requirement of Savitribai Phule Pune University, Pune for the award of the degree of Bachelor of Engineering (Information Technology).

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SYNOPSIS

Title:-. EMA(Emotional and Mental Analyst).

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Abstract:-

Chatbots are special trained A.I. bots that respond with the user in natural language just as a human would reply. Specifically, social/emotional chatbots are the ones which establish a strong emotional relationship with the user. The main concept behind this chatbot is to provide mental relief to the people who undergo different levels of stress and which can be the onset of an inimical depression. In this project, we are proposing an intelligent emotional therapeutic chatbot which distributes the human interaction into emotions like Happiness, Joy, Shame, Anger, Disgust, Sadness, Guilt, and Fear. Further, based on the emotional state, it identify the users' mental state such as stressed or depressed using users' chat data. For emotion detection, we will be deploying some popular deep learning classifiers of neural network. In particular, the proposed methodology of the chatbot is domain specific where through the users' interaction, the chatbot will try to prevent the pessimistic actions and rebuild more constructive thoughts.

Problem Statement :-

To develop a programmed chatbot which will form a conversational interaction with the user and analyze the current emotional crises the user is dealing with hence providing solutions or mental exercises for eliminating adverse and repugnant thoughts form the user's mind.

Objectives

- To understand the users' complex and conflicting thoughts.
- To analyze the users' state of mind.

- To provide a confidential trustworthy medium for the users to organize their thoughts with life-like interaction.
- To provide remedial exercises and routines to eliminate disputing thoughts form users mind and avoiding any self-harm causing intentions of the user.

Introduction

Värnik claims India's adjusted annual suicide rate is 10.5 per 100,000, while the suicide rate for the world as a whole is 11.6 per 100,000.
Every hour, one student commits suicide in India.
This present catastrophe of the pandemic has struck us with many disturbing events. Every soul on earth is terrified to go out in the vicinity. There is no other option but to clutch ourselves in the house and deal with the situation as deliberately as possible.
In such situations, our mental health has been greatly neglected and has resulted in depression and psychological disorders. To releave such distressed mindsets, one need to share his thoughts instead of clamming it inside. But in such introvert situations, one is hesitant and reserved to open up to somebody resulting in shyness and humiliation.
To overcome this dilemma, we are introducing a human like A.I. chatbot which recognizes the emotions of the user by interacting with simple conversation and analyze what abrupt thoughts might lay in the user's mind. The user may name the bot anything he likes and shares his emotions, his thoughts, his psychological dilemmas with it and seek for solution. The bot will analyze what the user is dealing with and provide the user with comforting words, fun games, jokes, mind-soothing exercises, daily diary logs, daily mood tracker and much more stuff that will ease the user's nerves.
This will allow users to share their thoughts and worries without hesitation and shyness.

The user's data will be secure enough and can be manipulated by the user as per his liking.

LITERATURE SURVEY

Title: Combating Depression in Students using an Intelligent ChatBot:
A Cognitive Behavioral Therapy
Author's name: Falguni Patel, Riya Thakore, Ishita Nandwani, Santosh Kumar Bharti

Description: This paper highlighted the importance of a social therapeutic chatbot especially for the students. In this work, we proposed an intelligent chatbot for mental state identification and their remedy. In order to identify emotion of user chat text, three deep learning algorithms. With the help of label of emotion, it also identify the mental state of the user such as stressed or depressed. In the future, we will increase accuracy for text classification methods.

Title: Model of Multi-turn Dialogue in Emotional Chatbot
Author's name: Chien-Hao Kao, Chih-Chieh Chen, Yu-Tza Tsai

Description: In this study, they combined the multiturn dialogue model and sentiment recognition model to develop a chatbot, that is designed for used in daily conversations rather than for specific tasks. Thus, the chatbot has the ability to provide the robot's emotions as feedback while talking with a user. Moreover, it can exhibit different emotional reactions based on the content of the user's conversation.

Title: On the Construction of more Human-like Chatbots: Affect and Emotion Analysis of Movie Dialogue Data.

Author’s name: Rafael E. Banchs

Description: This paper looks beyond the simple conversational chatbot. It is about building a machine that can conduct conversations like humans do. The movie dialog data has been used to train the tool named ‘The Crystal Emotions Tool’. The responses have been characterized by tonal polarity dimensions, cognitive-affective biased dimensions and emotional biased dimensions. The main focus is to get more natural conversation by framing responses according to user’s personality.

Applications:

- Give users basic recommendations on how to improve mental wellbeing.
- Provide user specific report based on conversations.
- Live analysis of mood and specific meditation or yoga tips.
- Identify if user is feeling low and will make user to do activities that he/she loves to do.
- Communicate more naturally based on user.

FUTURE SCOPE

The chatbot can be used for detailed psychological personal care by hospitals so that physically challenged and elderly people. In permission of users this data can be used for scenario based psychological study for researchers.